



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,817	10/27/2003	Pascal Foessel	ACY-33656	9671

7590

06/02/2004

Herbert B. Keil
KEIL & WEINKAUF
1350 Connecticut Ave., N.W.
Washington, DC 20036

EXAMINER

CLARDY, S

ART UNIT	PAPER NUMBER
----------	--------------

1616

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/692,817	Applicant(s) FOESSEL, PASCAL	
	Examiner S. Mark Clardy	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1616

Claims 1-3, 5-8, and 10-12 are pending in this application which is a continuation of SN 09/542,614, filed April 4, 2000 (priority date: April 9, 1999), now US Patent 6,673,748.

Applicant's claims are drawn to compositions (claims 8 and 10) comprising the following herbicides, and methods of using them (claims 1-3, 5-7, 11, 12) for controlling *Poa* (bluegrass), *Polygonum* (knotweed or smartweed), or *Setaria* (foxtail):

"D": dinitroaniline herbicide (pendimethalin, trifluralin, benfluralin, butralin, dinitramine, ethalfluralin, fluazinam, fluchloralin, flumetralin, oryzalin, prodiamine)

"I": imidazolinone herbicide (imazamox, imazethapyr, imazaquin, imazapic, imazapyr).

The wt% D:I ratio ranges from about 3.3:1 to 900:1 (claim 10). Test data has been provided for the combination of pendimethalin and imazamox at a weight ratio of 15:1. Claims specifically drawn to compositions and methods comprising pendimethalin and imazamox were allowed in the parent application.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1616

Claims 1-3, 5-8, and 10-12 are rejected under the judicially created doctrine of double patenting over claims 1-9 of U. S. Patent No. 6,673,748, since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: synergistic herbicidal compositions comprising dinitroaniline herbicides (i.e., pendimethalin), and imidazolinone herbicides (i.e., imazamox).

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804. The presently presented claims were originally presented in the parent application, which was not subject to a restriction or election of species requirement.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

Art Unit: 1616

international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 8 and 10 are rejected under 35 U.S.C. 102(a), (b), and (e) as being anticipated by any ONE of the following patents: Martin (US 4,822,405) OR Kimler et al (US 5,393,731) OR Morgan et al (US 5,624,884).

Martin et al teach herbicidal emulsion concentrate compositions comprising imidazolinone herbicides (imazapyr, imazethapyr, and imazaquin: col 4, lines 45-53) in combination with dinitroaniline herbicides (pendimethalin or trifluralin: lines 54-58). In Table II (columns 7-8), the herbicides used in the compositions are a) imazaquin, b) imazethapyr, g) pendimethalin, and h) trifluralin; the D:I concentration ranges from 6:1 to 18:1 (examples 10, 12-22, and 8).

Kimler et al also teach the combination of dinitroaniline herbicides with imidazolinone herbicides (col 2, lines 40-43) in water dispersible granular compositions. Preferred dinitroaniline herbicides are pendimethalin, trifluralin, benfluralin, ethalfluralin, and oryzalin (col 3, lines 43-49); preferred imidazolinone herbicides are imazaquin, imazethapyr, imazamethapyr, and imazapyr (col 4, lines 49-56). The dinitroaniline herbicide is present at 20-90% wt, preferably 30-70%; the imidazolinone herbicide is present at 1-20% wt, preferably 5-15%; thus, using the preferred weight ranges, the possible weight ratios for the preferred D:I combinations range from 2:1 to 14:1 (col 4, lines 49-53: 30%:15% to 70%:5%). Exemplified pendimethalin:imazaquin compositions have weight ratios of 14:1 and 16:1 (Table in column 6, compositions 10 and 13, respectively).

Art Unit: 1616

Morgan et al teaches the formulation of aqueous suspension concentrates comprising pendimethalin and a second herbicide, including several imidazolinone herbicides: imazapyr, imazamethapyr, imazethapyr, imazaquin, imazamox, and imazamethabenz-methyl (columns 3-4 and claim 20). The concentration ratios in claim 21 are 5-50% pendimethalin, and up to 50% of the secondary herbicide. In Table II, Example 33, the composition contains pendimethalin and imazaquin in a D:I ratio of 30:5, or 6:1.

Thus, the herbicidal compounds of the patents, as well as their concentration ratios, are within the scope of applicant's invention. As a result, any properties of such compositions, such as synergy, are seen as an inherent property of the compositions, which are, therefore, anticipated by the prior art.

While neither reference teaches methods of using the dinitroaniline/imidizolinone herbicide combinations (focusing instead on formulation stability), it would necessarily follow that the compositions would be applied to weeds for weed control, and that such applications would exhibit any properties, such as synergy, which the formulations inherently possess. Thus, methods of applying the compositions to weeds in general would be anticipated. The novelty of a process is destroyed, even though some of the benefits of the process are not recognized or appreciated, when the process has been in well-established use; the fact that prior public users did not understand or appreciate one benefit of the process, discovery of whose implications involved nothing that was new in its use or method of application, does not save the process from anticipation under Section 102(b). The fact that the patent process was successfully performed by earlier users is alone sufficient to negate novelty. *Bird Provision Co. v. Owens Country Sausage, Inc.* 197 USPQ 134.

Art Unit: 1616

Applicant's methods, however, are specifically drawn to the control of *Polygonum*, *Poa*, and *Setaria* weeds and are therefore not anticipated.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-8, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of any one of the following patents: Morgan et al (US 5,624,884), Martin et al (US 4,822,405), OR Kimler et al (US 5,393,731); in combination with Klingman¹ et al and Anderson².

The three cited patents each disclose the combination of pendimethalin with imidazolinone herbicides, while the nonpatent references teach that the component herbicides are useful against annual and broadleaf weeds.

Klingman et al teaches that the dinitroaniline herbicides fluchloralin, oryzalin, pendimethalin, and trifluralin were known to be useful against various weeds including bluegrass, foxtail, knotweed, and smartweed. The appropriate entries in the table are reproduced below. An "x" indicates the herbicide controls the weed; the reference pre-dates the imidazolinone herbicides:

¹Klingman et al. *Weed Science: Principles and Practices*. 2nd ed. John Wiley & Sons:NY. P. 418-421. 1982.

²Anderson, Wood Powell. *Weed Science: Principles and Applications*. 3rd ed. West Pub. Co.:NY. P. 200-204. 1996.

Art Unit: 1616

	Fluchloralin	Oryzalin	Pendimethalin	Trifluralin
Bluegrass		x		x
Foxtail(s)	x	x	x	x
Knotweed		x		x
Smartweed			x	

Anderson teaches that the imidazolinone herbicides, specifically imazapyr, imazaquin, and imazethapyr (p. 203-204), are used for the control of grass and broadleaf weeds in certain crops and turfgrasses, and general weed control in noncrop areas (p. 200).

Although none of the patents teaches methods of using the dinitroaniline/imidazolinone herbicide combinations (focusing instead on formulation stability), it would necessarily follow that the compositions would be applied to weeds for weed control, and that such applications would exhibit any properties, such as synergy, which the formulations inherently possess. Thus, methods of applying the compositions to weeds in general would be at least obvious.

Thus it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have combined dinitroaniline and imidazolinone herbicides in a single composition because the combination of these herbicides is specifically taught in the prior art patents for suspension concentrates, granules, or emulsion formulations. Given the known spectrum of utility of the component herbicides, the ordinary artisan would expect that the resultant compositions would be useful for the control of annual grasses and broadleaf weeds, such as bluegrass, foxtail, knotweed, and smartweed, as taught in Klingman et al. Determination of appropriate application rates is within the skill level of the ordinary artisan.

Art Unit: 1616

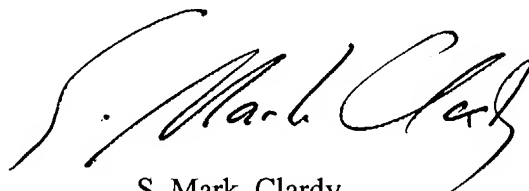
The specification provides experimental data showing synergistic control of *Polygonum*, *Poa*, and *Setaria* weeds with the combination of pendimethalin and imazamox, wherein the difference between the observed and expected results ranges from 4% to 9%. Claims drawn to this species were allowed in the parent application. For the remaining species to be found allowable, however, it would appear that a comparison with the closest prior art is necessary to establish unexpected results. An inventor relying on comparative tests to rebut a *prima facie* case of obviousness must compare the claimed invention to the closest prior art. In re De Blauwe, 222 USPQ 191.

No unobvious or unexpected results are noted; no claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 571-272-0611. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Mark Clardy
Primary Examiner
Art Unit 1616

May 28, 2004